

WHAT IS CLAIMED IS:

1. A head actuator for a head provided so as to be accessible to a disk-shaped recording medium rotating above a base, said head actuator comprising:

Sub B1  
a main actuator driven so as to rotate above said base; and

a microactuator driven so as to swing relative to said main actuator, said head being mounted on said microactuator;

said main actuator and said microactuator being controlled so that said head is moved in a substantially radial direction of said recording medium and positioned over a desired track of said recording medium;

a primary resonant frequency of mechanical characteristics of said main actuator being set to 100 Hz or higher.

5A  
C1  
2. A head actuator according to claim 1, wherein said main actuator includes a ball bearing fixed to said base, said ball bearing having a property of a nonlinear spring, said primary resonant frequency being set according to the rigidity of said nonlinear spring.

3. A head actuator according to claim 2, wherein the rigidity of said nonlinear spring is increased by increasing a preload in said ball bearing.

4. A head actuator according to claim 2, wherein the rigidity of said nonlinear spring is increased by increasing a ball diameter in said ball bearing.

5. A head actuator according to claim 2, wherein the rigidity of said nonlinear spring is increased by increasing the viscosity of a grease used in said ball bearing.

6. A head actuator according to claim 1, further comprising an elastic member provided between said main actuator and said base, said primary resonant frequency being set according to the modulus of elasticity of said elastic member.

7. A head actuator according to claim 1, wherein said primary resonant frequency is set to 150 Hz or higher.

2025.01.18.01.05.13